Amendments to the Specification:

Please replace the paragraph, beginning at page 6, line 19, with the following rewritten paragraph:

The feature extraction process adapts the parameters of a set of word models for the five vocabulary words, based on the observed input speech data. The feature extraction process is shown in Figure 1. As illustrated in figure 1, the models are hidden Markov (HMM) models, which are well known and described in the literature. The "seed" models from which adaptation occurs are derived over a large population of speakers. Adaptation is accomplished using a single pass of the Baum-~~Welsh~~ Welch algorithm, which is also well-known. See "on inequality & associated maximization technique is statistical estimation of probabilistic functions of Markow processes" by L.E. Baum published in Inequalites v. 3, no. 1, pp. 1-8, (1972). See also "Maximum Likelihood from incomplete data via the EM algorithm" by A.P. Pempster, N.M. Laird, D.B. Rubin published in the J. Royal Statistics Society, v. 39, pp. 1-38 (1977).

Please replace the paragraph, beginning at page 7, line 16, with the following rewritten paragraph:

The analyzed speech is applied to one input of a module 11 whereby a Baum-~~Welsch~~ Welch HMM model adaptation is performed. Actually, the model adaptation is performed using seed HMM word models which are stored in the memory bank designated by module 12. These seed HMM word models are compared with the spectral analyzed speech and to produce at the output adapted HMM word models. These models have been adapted from the seed models in memory 12 via the Baum-~~Welsch~~ Welch algorithm to produce the adapted HMM word models. It is noted that the HMM technique which is hidden Markov models, is quite well known in speaker recognition system. See, for example, an article entitled On the Application of Vector Quantization and Hidden Markov Models to Speaker Independent Isolated Word Recognitions, published in the Bell System Technical Journal, Vol. 62, No. 4, pages 1075-1105, April 1993. The use of the hidden Markov model (HMM) is quite well known in speech processing.

Please replace the paragraph, beginning at page 9, line 7, with the following rewritten paragraph:

Figure 3 further illustrates the feature extraction process and comparison of the enrollment data and test data. As shown in Figure 3, the enrollment utterance, "96-74", is converted by means of the Baum-~~Welsh~~ Welch algorithm to a set of adapted HMM word models. The word models are laid out in the designated order ("four", "six", "seven", "nine", "ti"), and the state mean vectors are concatenated to form the feature vector. The same procedure is performed for the test utterance, "64-97". Accordingly, the two vectors can be directly compared, using weighted Euclidean distance, despite differences in the order of words spoken or differences in the speaking rate between the two utterances. The comparison is possible because the feature extraction process converts the variable input to a fixed-format feature vector.